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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/416,308	10/12/1999	PRADEEP K. KATHAIL	CISCO-1321	5986

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EXAMINER
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PHAM, HUNG Q

ART UNIT	PAPER NUMBER
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2172

DATE MAILED: 01/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/416,308

Applicant(s)

KATHAIL ET AL.

Examiner

HUNG Q PHAM

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 19-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 19-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other:

## DETAILED ACTION

### *Response to Arguments*

1. Applicants' arguments, see page 9, filed 10/24/2003, with respect to claims 19 and 27 under 35 U.S.C. § 112 have been fully considered and are persuasive. The rejection of claims 19 and 27 has been withdrawn.

2. Applicants' arguments, see page 10, lines 1-16, filed 10/24/2003, with respect to the step of *storing an identification of said one of said plurality of subsystems that transmitted said notification request in a record in said database that stores said configuration data* in claims 19 and 27 have been considered but they are not persuasive. However, in order to give applicants an opportunity to respond to the clarification, the request for another non-final is respectfully granted.

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**4. Claims 19-20, 25, 27-28 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Traversat et al. [USP 6,115,715].**

Regarding to claim 19 and 27, Traversat teaches a method and product for updating and managing a configuration database used to store configuration and user data in a computer network having multiple clients, such as network computers (Abstract). The Java System Configuration Database or JSD is a single subsystem that includes the client schema, the server schema (Col. 3, lines 47-57), also the lock API and management features (Col. 7, lines 20-23). As shown in Figs. 2-3 is the structure of client and server schema with a plurality of entries. In order to *maintain the configuration database* a transaction mechanism is used to determine whether a new node is being added to or an existing node is being modified by the transaction (Col. 2, lines 18-32). A transaction management system has a transaction API as a container or a transaction management object that manipulates any type of abstract entry. An entry, i.e., a particular operation, can be placed into this transaction API or container. The transaction API is a way for an application to have a transaction performed and has two components: a lock API and an event queue (Col. 6, lines 37-61). As shown in Fig. 4,

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an entry object 406 is placed in Base Entry class 402 for a transaction to take place.

The lock API is a two-phase locking process. In the first phase an entry is locked and in the second phase an update is performed (Col. 6, line 62-Col. 7, line 30). When a printer is first attached to the client, the client makes an inquiry to the server JSD, informing the server JSD that there is a new hardware component, and providing information on the printer (Col. 7, line 52-Col. 8, line 2). As shown in Fig. 5 at step 502, the transaction, such as adding a new printer to a client, will attempt to lock the appropriate node in a sub-tree of the client schema. The transaction will get a lock on the desired node after the current transaction is done, the current transaction will send an event notification to an event manager that will inform all waiting threads waiting to get a lock on the sub-tree or individual entry that one of them can now proceed (Col. 8, lines 3-24). As seen, a transaction to add a new printer as *a notification request, wherein said notification request is a request to receive notification of changes to configuration data of a printer as an object in said network identified in said notification request* by an entry object is *received* by JSD and *sent from one of a plurality* of waiting transactions as *subsystems, wherein each of said plurality of subsystems is instructions executed by said processing unit to provide an application of an internetwork operating system*. Traversat further discloses *a media readable by said processing unit that stores said instructions* (Col. 16, lines 11-41). Traversat does not explicitly teach the step of *storing an identification of said one of said plurality of subsystems that transmitted said notification request in a record in said database that stores said configuration data for said object identified in said notification request wherein said identification identifies said one of said plurality of subsystems as a*

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*subsystem to notify in response to a change in said configuration data for said object in said record*, and the JSD is implemented in *a router device*. However, as shown in Fig. 5, once a lock on a desired entry is obtained at step 502, a transaction handle is created for the transaction at step 506. This handle object is a unique identifier for the specific transaction that caused the lock (Col. 8, lines 42-46). A table of records, where each record represents a specific lock can be used to match locks with a specific transaction (Col. 9, lines 7-18). As seen, a transaction handle as an identification of said one of said plurality of subsystems that transmitted said notification request. A record represents a specific lock for matching with a specific transaction and contains the transaction handle or identification, obviously, could be stored in JSD. Thus, by storing the record that contains the transaction handle in JSD, the technique as discussed indicates the step of *storing an identification of said one of said plurality of subsystems that transmitted said notification request in a record in said database that stores said configuration data for said object identified in said notification request*. Traversat further discloses the transaction performs the actual update at step 508 (Col. 8, lines 62-64). At step 510 the update are committed and the transaction completed at step 512 (Col. 9, lines 7-9 and lines 40-41). The locks acquired at step 502 are released by examining the transaction handle for each lock. Only those locks that have the correct transaction handle are released (Col. 9, lines 9-14). Once the locks are released, a notice that the transaction has been committed is broadcast to all threads waiting on the nodes that were locked (Col. 9, lines 18-23), and the transaction handle is used to identify those updates that were to be committed (Col. 10, lines 52-54). As seen, the transaction handle again is used to

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identify the other transaction that waiting for the lock released to broadcast the notice that the transaction has been committed. The other transaction that waiting for the lock released is considered as *one of said plurality of subsystem as a subsystem to notify in response to a change in said configuration data for said object in said record*. In different word, the technique as discussed performs the claimed *identification identifies said one of said plurality of subsystem as a subsystem to notify in response to a change in said configuration data for said object in said record*. As taught by Traversat, the system database can operate on other types of platforms. Thus, *a router device* could be used for operating the system database. It would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the Traversat method and product by implementing the technique of notifying configuration data in a router device and including the step of storing an identification of a transaction in a record in JSD, and by the modification, configuration data of a router could be updated and handled in the most efficient manner.

Regarding to claims 20 and 28, Traversat teaches all the claimed subject matters as discussed in claims 19 and 27, Traversat further discloses: *receive a change in said configuration data of said object; reading said identification of said one of said plurality of subsystems from said record of said object receiving to receiving said change of said configuration data, and transmitting a notification of said change of configuration data of said object to said one of said plurality of subsystems responsive to said reading of said identification* (Col. 7, line 52-Col. 10, line 31).

Regarding to claims 25 and 33, Traversat teaches all the claimed subject matters as discussed in claims 19 and 27, Traversat further discloses the step of *receiving a remove notification request from said one of said plurality of subsystems, wherein said remove notification request is a request to remove said one of said plurality of subsystems from said plurality of subsystems to be notified in response to a change in said configuration data, and removing said identification of said one of said plurality of subsystems from said record of said configuration data storing subsystems to be notified of a change in said configuration data* (Col. 8, line 60-Col. 9, line 58).

**5. Claims 21-24, 26, 29-32 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Traversat et al. [USP 6,115,715] in view of Tabuchi [USP 6,446,093].**

Regarding to claims 21 and 29, Traversat teaches all the claimed subject matters as discussed in claims 19 and 27, Traversat further discloses the step of *retrieving a record storing said configuration data for said object responsive to receiving said notification request* (Traversat, Col. 8, lines 3-24), but fails to teach the step of *setting a notification flag in said record*. Tabuchi teaches a distributed system comprising a document server and a plurality of clients, which are connected to the document server via a network and a method of managing a document shared in the distributed system (Tabuchi, Col. 1, lines 5-10). Tabuchi further discloses the step of setting a notification flag in a record



(Tabuchi, Col. 6, lines 15-54). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the Traversat product and method by including the technique of setting a notification flag as taught by Tabuchi, and by doing this, a record could be controlled and managed via access right.

Regarding to claims 22 and 30, Traversat and Tabuchi teaches all the claimed subject matters as discussed in claims 21 and 29, Traversat further discloses the step of *receiving a change to said configuration data of said object retrieving said record of said object* (Traversat, Col. 8, line 60-Col. 9, line 5), but fails to teach the step of *reading said notification flag*. Tabuchi teaches a distributed system comprising a document server and a plurality of clients, which are connected to the document server via a network and a method of managing a document shared in the distributed system (Tabuchi, Col. 1, lines 5-10). Tabuchi further discloses the step of reading notification flag (Tabuchi, Col. 26, lines 27-28). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the Traversat product by including the step of reading notification flag, and by including the step of reading, a record could be controlled and managed for modifying via access right.

Regarding to claims 23 and 31, Traversat and Tabuchi teaches all the claimed subject matters as discussed in claims 21 and 29, Traversat further discloses the step of *determining said notification request is configuration data of a name space, retrieving each child record of said record* (Traversat, Col. 8, lines 3-24), but fails to teach the step of

*setting a notification flag in each said child record.* Tabuchi teaches a distributed system comprising a document server and a plurality of clients, which are connected to the document server via a network and a method of managing a document shared in the distributed system (Tabuchi, Col. 1, lines 5-10). Tabuchi further discloses the step of setting a notification flag in a record (Tabuchi, Col. 6, lines 15-54). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the Traversat product and method by including the technique of setting a notification flag in a child record as taught by Tabuchi, and by doing this, a child record could be controlled and managed via access right.

Regarding to claims 24 and 32, Traversat and Tabuchi teaches all the claimed subject matters as discussed in claims 23 and 31, Traversat further discloses the step of *receiving a change to configuration in a child record, retrieving said child record responsive to receiving said change, and transmitting notification of said change of said change to said one of said plurality of subsystems identified in said parent record* (Traversat, Col. 8, line 60-Col. 9, line 58), but fails to teach the step of *reading said notification flag in said child record responsive to retrieving said record, reading a parent record of said child responsive to reading said notification flag.* Tabuchi teaches a distributed system comprising a document server and a plurality of clients, which are connected to the document server via a network and a method of managing a document shared in the distributed system (Tabuchi, Col. 1, lines 5-10). Tabuchi further discloses the step of reading notification flag (Tabuchi, Col. 26, lines 27-28). Therefore, it would have been

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obvious for one of ordinary skill in the art at the time the invention was made to modify the Traversat product by including the step of reading notification flag in child also parent record, and by including the step of reading, a record could be controlled and managed for modifying via access right.

Regarding to claims 26 and 34, Traversat teaches all the claimed subject matters as discussed in claims 25 and 33, Traversat fails to disclose the step of *determining whether said configuration data for which said remove notification request is for a name space, retrieving each child record of said record of said configuration data responsive to a determination said configuration data is a name space, and removing a notification flag, from each said child record*. Tabuchi teaches a distributed system comprising a document server and a plurality of clients, which are connected to the document server via a network and a method of managing a document shared in the distributed system (Tabuchi, Col. 1, lines 5-10). Tabuchi further discloses the step of *determining whether said configuration data for which said remove notification request is for a name space, retrieving each child record of said record of said configuration data responsive to a determination said configuration data is a name space, and removing a notification flag, from each said child record* (Tabuchi, Col. 6, line 15-Col. 9, line 28). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the Traversat method by including the step of removing notification flag from the child record after retrieving the child record, and by including the step of removing and retrieving, a record could be controlled and managed for modifying via access right.


**Conclusion**

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUNG Q PHAM whose telephone number is 703-605-4242. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JOHN E BREENE can be reached on 703-305-9790. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Examiner Hung Pham  
January 2, 2004

  
SHAHID ALAM  
PRIMARY EXAMINER